THE GENESEE FARMER.

VOL. III. ROCHESTER, SATURDAY, OCTOBER 19, 1833. NO. 42.

PUBLISHED EVERY SATURDAY
BY LUTHER TUCKER & CO.

Terms—$2 50 per annum, or
$2 00 if paid in advance.

☞All subscriptions must commence with the first number in January or July, and no subscriber will be taken for less than six months.

☞The first and second volumes can be supplied to new subscribers.

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THE FARMER.

SATURDAY, OCTOBER 19, 1833.

A NEW GRASS INTRODUCED.

In June I received a small bag (about 12 lbs.) of seed of what was denominated *Italian Rye Grass*, from V. LE RAY DE CHAUMONT, Esq., to whom it had been forwarded by his father, in France. The instructions were to sow it either after harvest, or in the spring or fall, at the rate of 35 lbs. to the acre, and were accompanied with the following memorandum of the character, habits and product of the grass:

"Grows in middling lands; better in good. When sown in the fall, first crop in May; second in July. You may gather the seed within the month. Without aiming at seed you may have four crops. One crop has produced from 5 to 6000 Kilograms (11 to 13,000 lbs.) for 2. 47 acres. Comes 15 days after the Lucerne. Bears great cold, better than clover—as well as wheat. May be sown with grains; but when they have acquired a certain strength; otherwise its rapid vegetation might smother them. Lasts only two years. Bears three or four times more than common rye-grass."

In the Edinburgh Quarterly Journal of Agriculture for March, I find a report made on this grass to the Highland Society, by Mr. Lawson, seedsman to the Society. The report first quotes the following from the *Bulletin des Sciences:*

"This plant is said to be distinguished from the common rye-grass (*Lolium perenne*) by its larger leaves, by its being of a deeper green, and by the greater height to which it grows. It is usually sown in autumn, as is the general practice with grass seeds in the south of Europe. After the field is harvested, it is sown at the rate of 16 to 18lbs. the acre, and the seed rolled in. In the following autumn the turf is covered like an old meadow, and the crop of the following year is more than double. It may also be sown in spring. If it be sown with clover or lucerne, its growth is so rapid that it will quickly choke them. It is eaten greedily by cattle, whether green or dry, and yields fifty per cent of hay"—i. e. it loses only one half in weight by drying.

Mr. Lawson then proceeds: "As there is no account of any trial having been made of this grass in Britain, it was an object of some importance to obtain a few seeds or plants of it, for the purpose of observing its character and modes of growth in this country. Mr. Thompson of Banchory having obtained a few seeds of it at the agricultural exhibition at Munich, had the goodness to communicate them to me. About the same time I obtained a small quantity of what was called the new rye-grass from Hamburgh.

These two kinds of rye-grass Mr. Lawson sowed in the spring, together with a small quantity of Stickney's rye-grass, esteemed a superior kind. The two foreign varieties proved to be alike; and the plants, in a short period, "exhibited a decided superiority over that of Stickney's rye-grass; and this superiority was afterwards sustained during the whole of the season. The whole character of this plant, so far as it has been observed, accords precisely with the account in the Bulletin des Sciences." Though this rye-grass will be valuable as an early grass, continues Mr. Lawson, it also retains its powers of growth to a late period in the season. "A patch of it, which had flowered and ripened its seeds, was cut over in the first week in November, and, notwithstanding the frosts we have since had, those plants have put forth new leaves, which, at present (21th Dec.) have attained a length of above a foot, shewing a superiority to any other grass in producing winter herbage." It has been found to withstand the winter well about Hamburgh, where other rye-grass is killed; and, what is of great importance, it is found to be perennial.

I sowed half of the seed which I received in August, according to direction. It looks uncommonly fine and luxuriant, and promises to realize the high character given to it in the French and Scotch agricultural works, and to become a very valuable acquisition to our husbandry, particularly to the sheep farmer. I sowed at the same time a few pounds of seed of the *Trifolium incarnatum*, mention of which clover was made in the Genesee Farmer in May. I will notify you of the result of both experiments in my grounds as soon as they can be determined. J. BUEL.

Albany, Sept. 16, 1833.

For the Genesee Farmer.

RESULT OF EXPERIMENTS ON WHEAT.

MR EDITOR—Having observed much controversy maintained through the columns of the Genesee Farmer during the past year, upon the novel subject of wheat, by a natural process, turning to chess, although from first to last incredulous I had the curiosity to give the subject some attention; this more especially when the names of David Thomas and Gideon Ramsdell were to be seen among the belligerents. I claim the latter of these gentlemen as a former acquaintance and friend, and believe him a person of truth and rectitude, and that he would not on any account knowingly state that which he knew not to be true; but I am certainly disposed to think him laboring under a mistake when he asserts "wheat will turn to chess" under any circumstances.

The subject being both new and interesting to me, I embraced the earliest opportunity of testing its truth by experiment. Accordingly I removed a piece of sward from a waste corner in my garden—marked the spot and took every precaution against deception. Thirty small stakes were then driven down in this prepared spot; and from the outside of a wheat stack I took a head of wheat, the grains of which appeared considerably weather-beaten and of a dull color, some of the grains were sprouted and the sprouts withered. I placed a grain of this wheat by the side of each stake and left them uncovered, protecting it from the fowl with brush. When it come up in the fall I examined it critically, and ascertained that each stalk came directly from the grains of wheat I had planted. The severity of the winter killed a part of it. That which withstood the winter I kept clear of weeds and grass. Early in May I mutilated one half of it—it sprung up again and all produced *wheat*, and not so much as one grain of chess. Not being satisfied with the first, I made a second experiment; trying to raise chess on a larger scale. In threshing my wheat on an earthern floor exposed to the weather, a shower came up and prevented me from sweeping the floor after the chief of the wheat was removed where it could be kept dry; the sweepings lay on the floor two weeks, until it had the appearance of being much damaged, it was then taken up without further cleaning and sowed in a place adjoining the place sowed with the wheat which was threshed and properly taken care of at the same time. At harvest time I could discover no more chess upon that part sowed with the damaged wheat, than upon that sowed with the good wheat. There was as usual some through all of it.

It appears my friend G. R. never fails, in any of his experiments to obtain a plentiful return of chess, when he plants what he denominates his prepared wheat. Some of his experiments were evidently rather too carelessly conducted to be satisfactory, one would suppose even to himself, while it is true others seem to have been managed with much precision,—the results have been the same,—chess in abundance has invariably been produced. He does not "fellowship" the flat absurdity, that "lambs will turn to pigs," or "colts to calves," being out of the common course of nature; but wheat to turn to chess is, in his opinion, no more extraordinary than for sweet to turn to sour or cider to vinegar. Now if there be inconsistency in the proposition that lambs will turn to pigs, so gross that the most feeble and debilitated minds can readily discover it, there is equal inconsistency in the position that wheat will turn to chess; for either must suppose an innovation and perversion of the established laws of nature which from time immemorial have through all the mighty system of the universe, in operations, great and small, stood firm as the pillars of heaven. There is no analogy in the process by which sweet turns to sour and, that which, by possibility wheat could turn to chess. The one is decomposition and re-combination—the result of fermentation, effected by the operations of the elements, upon an *inorganic* substance. The other is a regularly organized body, only in a limited degree subjected to these laws of the external kind, obeying certain fixed and arbitrary laws within engrafted with the very tissue of its existence; and it is the very business of these laws in organised bodies, not only to preserve them from destruction by the deteriorations of time and the elements, but also from transmutation, change or degeneracy. If then these laws which have regulated the propagation, and preserved so identically the specific

peculiarities of all organised existences, from the earliest of time down to the present day, and which will continue to do the same throughout all time to come, we are assured in the sacred volume of Truth. To which laws the Creator has given such absolute and unlimited away in preserving order and harmony in this most beautiful and useful portion of creation. Can it be thought with propriety they are now less capable of fulfiling that office than they were at first? It will take hard preaching to proselyte me to this heretical doctrine. And while I entertain becoming deference for the veracity and opinions of my friend G. R., I would recommend to him not to leave the subject until he can find some more rational cause for the appearance of chess where he should look for wheat, than to ascribe it to the epiphenominon of " transmutation."

SENECA LAPHAM.

Champaign co., Ohio, Oct. 1, 1833.

For the Genesee Farmer.

ON REMOVING FRUIT TREES.

This is a subject, which in garden operations requires more attention than it usually receives, for generally in the removal or transplantation of trees both gardeners and nurserymen are too careless and inattentive in taking them up, not giving that attention to the preservation of the roots entire, which is of the utmost moment to the future health of the tree; considering that if they have left enough to keep the tree alive it is all that is requisite. This is a very erroneous idea, and cannot be too much repudiated; for the consequence is, that although the branches left on remain alive, there is so great a deficiency of sap, from the loss of the roots, that the vessels cannot receive that portion of nutrition which they require.

'Tis too frequently the case that the roots are broken off at random, or cut without having any just principles in view. In diminishing the roots of a tree in this manner the result will be stinted, and unhealthy trees, and frequently their death is inevitable. A tree should be taken up with great care, preserving as many of the roots as possible; butin what ever proportion they may unavoidably be diminished, reduce the top of the tree to the same extent, as near as possible. This will enable the tree to grow with vigor, as there will be no more branches than the roots are competent to supply with food.

Another point in planting of trees is worthy of a remark—how frequently do we observe trees when being planted that their roots extend much farther than the pit formed for receiving them, and instead of enlarging the pit, the roots are either cut off, or what is still worse, *turned back* and distorted. This is very censurable. Every hole intended for the reception of a tree should be at least two or three inches wider, in all directions, than the roots of the tree will extend, when planted.

Yours, A GARDENER.

Elephants are now used in Ceylon for ploughing the rice fields, and in preparing new grounds for the cultivation of coffee, pepper, &c. An elephant will perform the work in one day which twenty bullocks were in the habit of performing before. In a country like Ceylon, which is so very thinly populated, by this system of employing elephants much time is saved, and a great deal of agricultural work performed; an elephant may be purchased in Ceylon at any time for ten or fifteen pounds.

From the Farmers' Register.

NARROW LEAFED DOCK, A FERTILIZER OF LAND.

Dock has, so far as my experience extends, been regarded as a nuisance to land, and all good farmers were required to wage constant war against it; and perhaps it is right that they should be vigilant in its extirpation from other crops; but I am satisfied we have not under our control a more powerful restorer of worn out land.

In a piece of my meadow, I discovered a large portion of dock, and to prevent its taking entire possession of it, I had all the stems pulled up before I thought they were ripe; but in this I was mistaken, for I afterwards discovered that the ground upon which they were deposited, (a poor sandy worn out bottom, that would not bring me the seed of any thing I had put in it,) send up a most tremendous crop of docks, which I had mowed down rather earlier than I had them pulled up the year previous, and while they were much greener: but I was again disappointed, for the seed had matured more than I had supposed, and another bountiful crop was the result. Next spring and summer, to prevent the dock from spreading, I ploughed the ground three times, turning under the green dock, which killed all effectually; I spread lightly some timothy hay upon this spot in August, and this month I obtained from this spot which I regarded as worthless, the heaviest crop of grass I ever saw cut. This suggests the query—would not dock be a powerful assistant in restoring the exhausted bottoms of Eastern Virginia? Its long and wide spreading roots would, I am conscious, bring the strength from below where our best ploughs reach, and deposite it on the surface: it produces a large quantity of seed, which is easily collected; and dock is quite easily conquered, if taken in any stage previous to its blossoming, but afterwards it cannot be managed well.

J. F. CALDWELL.

AGRICULTURE IN OHIO.

It will be observed by every intelligent farmer who travels through the western country, that we have not yet attained a very great degree of perfection in the arts of agriculture. It is but a short period since our whole state was covered with a dense and almost impenetrable forest. The farmers are, therefore, mostly new, and the soil very productive. But it will be observed that those which have been used for several years begin to show evident signs of degeneration.

The farmer of the eastern and middle states, who has, from neglect or mismanagement, or other causes, suffered his soil to become exhausted and worn out, and therefore incapable of yielding an adequate support for his family, finds a refuge in Ohio, where the land is new, fertile and cheap. Here several years are lost in clearing away the trees and preparing a small cabin or " log-house," for the accommodation of his family. He then adopts his old system of farming, and the result is, that his new and rich land soon becomes old and worn out. In a very few years he begins again to think of removing to the *new country*, and in Indiana he goes through a similar routine, and with a similar result. There are many exceptions to the above remarks in all parts of the state; and it would be an unpardonable neglect not to state that there are many agriculturists in Ohio who conduct their operations on the most correct principles. There is another motive which induces many of the citizens of this state to emigrate to the *new country*. They were among the first settlers of the country, and like our great pioneer, Daniel Boon, have formed such an attachment to the hunter's life, that they really look upon the rapid settlement of the state with much regret—because it destroys the game!

The first great defect in the management of farms in the west, which will strike every one, is the *almost total neglect of manure*. " When my land needs manure," says one, " I will sell it and remove to the new country;" and it appears to be the general impression, that it is better to clear new land than to cart manure on to that which is old. Every barn-yard is covered with manure to the depth, in many cases, of five or six feet, preventing the free use of the building, which is sometimes removed on this accout. There are some farms along the bottom of the larger streams, which are annually overflown with water. This occasions a thin deposite of rich alluvial soil, and renders manure unnecessary. There are fields along the *Scotch bottoms* which have produced crops of Indian corn for thirty years in succession, without, in any sensible degree, diminishing the value of the soil. But when this is attempted on land differently situated, the effect is soon discovered.

Another very important defect, is the *want of a proper rotation of crops*. Nothing of this kind is to be seen, except the alternation of wheat and corn. No clover, buckwheat, or other ameliorating crop, is introduced to restore to the soil that nourishment which is taken from it by the wheat and corn. Wheat is frequently sown in the fall before the corn is removed from the fields.

The bad consequence of this system will be felt not only by the present occupiers of the soil, but also by many future generations. It is an evil which every true friend to his country should endeavor to prevent.

From the London Horticultural Register.

NEW WAY TO GROW EARLY POTATOES.

On walking out the other afternoon, in company with some friends, we were caught in a thunderstorm, and obliged to take shelter in a farm-house, the owner of which was known to one of the party. During the storm, the conversation turned upon gardening, and our host gave us a plan for raising new potatoes, which I send you. It may appear strange, but, as he says, he has tried it, and found it to answer very well. At all events, I think it worthy of consideration and a trial. I will give his own words, so far as my recollection serves.

" I was getting up my potatoes one year, in that field below the house, when the thought struck me, that by planting the smallest of them again, immediately, they would grow, and I should have new potatoes very early. I resolved to try the scheme. I had no hot-house or green-house, and was therefore obliged to hit on a plan for keeping off the frost, which I did as follows: I chose a part of the field in which I was working, and made trenches along the top and sides to keep it dry; I then covered it a few inches deep with litter, put on a few inches of soil, and planted the potatoes, covering them again with soil. In order to keep the earth from falling down and smothering them, when they began to shoot, I stuck sticks and brushwood over the last layer of soil, and put on a quantity of litter, covering the whole with soil. One of my neighbors who saw me, was surprised, and said he was sure I should have nothing in the end, but I told him to come again on new-year's day, and we would see. He did so, and we opened the bed, and found new potatoes about the size of a marble; I then told him I would leave it until the 6th of March.* I did so, and on opening it again, the new potatoes were as large as an egg, exceedingly well tasted, and quite mealy. I showed some to the gardeners in the neighborhood, who would scarcely believe me, when I told them how I had grown them."

The situation in which they were grown, and which I myself saw, was on the north side of a hill, in the northern part of Lancashire, not the warmest situation in the world, as you may imagine.

The idea of growing potatoes in the manner above stated is good, but my informant's mode is, I think, capable of improvement. If, instead of the side of a field, an old hot-bed were used, and hoops placed so as to prevent the soil from falling down and pressing on the young shoots, which would not grow very high, as potatoes when deprived of light do not grow so much above ground as they do naturally. I think early potatoes might be raised without any expense. I intend to try it at all events, and hope some of your readers will do so likewise.

MANCUNIENSIS.

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* The 6th of March is, I think, a great fair in the neighborhood.

From the New-York Farmer.

SALTPETER.

Messrs. Editors—It is with no small degree of surprise that I observed in your paper a communication from Prof. Rafinesque, in which the use of Saltpeter, for the purpose of preserving meat, is condemned in the strongest terms. A communication from such a source will be received by a great mass of the community as fact, without inquiring whether it be so or not; and as the article in question is most palpably erroneous, I feel it to be due to the public that its errors should be exposed. In the first place it is stated that "the part of saltpeter absorbed by the meat is nitric acid, or aquafortis, a deadly poison," than which nothing can be more erroneous. If Prof. R. can decompose nitrate of potassa (saltpeter or niter) by means of animal muscle, he has gone one step further in chimistry than any other person. On the same principle may we say that common salt is decomposed, and that the part which enters the meat is muriatic acid, as powerful a poison nearly as aquafortis. Mr. Rafinesque states that he "never could understand why this substance was added to common salt in curing meat, except that it is said to make it look better." As this is not the object of the niter, I will briefly state its use. By the addition of a small quantity of it, the meat is prevented from absorbing a far greater amount of common salt, while, at the same time, it is equally as liable to "keep," and in consequence of this diminished quantity of salt, the meat is rendered more tender, and retains its original sweetness to a far greater degree than it otherwise would. I would not, however, recommend a large quantity of saltpeter, as it would thus prove injurious instead of beneficial. About four ounces to every 100 lbs. of meat will be amply sufficient. At the same time a small quantity of refined sugar will materially add to its sweetness.

The very respectable source of the communication referred to above has induced me to be somewhat more lengthy in my remarks than I otherwise would have been, but I trust that the importance of the subject will be a sufficient apology. Yours, &c. Medicus.

From the Northern Farmer.

BRICK MAKING.

A new process of making brick has been recently introduced, by which it is said more than one-third part of the fuel necessary, by the present process, in burning the kiln, is saved; and that the burning is performed in half the time. It consists simply, in mixing a small quantity of fine anthracite coal, say in proportion of three pecks to one thousand of bricks, to be thoroughly incorporated with the mortar, before the bricks are moulded.

It is computed that half a dollar is saved on each thousand of bricks, by this new mode of manufacture; a saving certainly worthy the attention of brick-makers.

Another advantage, in which the friends to good morals are deeply interested, is, that brick-makers need not encroach on the sanctity of the Sabbath, as from three and a half, to four and a half days are sufficient to burn a kiln, which heretofore has required from eight to nine days.

LOW TRAINING OF GRAPES.

There appears to be very considerable concurrent testimony in favor of low training to prevent mildew; or rather, those grapes found growing very near the ground are found to be less liable to this malady. On the supposition that mildew is a parasitic plant, and that moisture is favorable to its germination and increase, the inquiry arises, are these low grapes less moistened by dews and rains than those that are higher? In ordinary seasons we think they are. They are protected from dews, mists, and light rains, by the over-incumbent leaves and branches. Although they are not as early dried by the rays of the morning sun, yet the moisture is more gradually evaporated, and they receive more radiated heat from the earth. After all, the vine culture, particularly the exotic, is in its infancy in our country.—*N. Y. Farmer.*

From the New-York Farmer.

REMARKABLE INSTINCT IN SWINE.

In the year 1807, a Mr. Joseph Allen, of Chatham, Columbia county, New-York, had occasion to transport, across Catskill ferry, a sow and a litter of pigs. When the ferry boat had advanced about half way across the Hudson river, some confusion among the cattle in the same boat caused the sow to jump into the river, and the pigs followed. The sow was seen swimming to the Catskill side. The pigs, not being seen, were supposed to be lost. But on arriving at the shore, the sow came out of the river, dragging out all her pigs, in a torpid state, each having its jaws fixed upon one of her teats, as if in a lock jaw state. This Mr. Allen himself and a Mr. Richard Thomas, who was with him, told me, both creditable men. In truth, I took pains carefully to investigate the truth at the time it happened.

I also had a sow, last summer, (1832,) which had littered in my yard. I sold her and her litter to my neighbor, Mr. Lewis Burtis. Last week her littering season came on. She seemed impressed with instinctive feelings for littering where she did before; but had not visited my premises for many months.

She came in the night, and with giant strength tore down two fences, and took possession, as near as possible, of the spot of her former littering. But here were no suitable materials for a bed. Consequently she attacked the lower limbs and sprouts of poplar trees, cut down little boughs an inch in diameter, peeled off the bark of a crab tree of ten years' growth, tore down a strong grape vine 14 feet in length, &c. and made her bed and littered at all hazards.

The natural inference is—farmers must provide littering places, in order to save their destructive operations, when their littering periods approach. I lost $20 by this curious instinct.

Yours, &c. AMOS EATON.

Troy, N. Y. Aug. 10, 1833.

TO PREPARE VEGETABLE MOLD QUICKLY.

As early in November, as the leaves of trees can be collected, let them be brought in a considerable quantity, into a close place, and dressed up there in the form of a hot-bed. Let this be well saturated with the drainings from the dung-heap, with suds from the washhouse, and with urine from the stable and cow-house, where this latter article can be procured. Let this bed or heap be covered and lined with fresh stable dung, to take it heat. When the heat is sufficiently subsided, let the leaves be uncovered and turned over, to mix the dry and wet well together, and if moisture be required, let them have it of the same description repeating the process till all be reduced to fine mold. This will be ready for use in two months from the time of collecting the leaves, and to prevent any waste of the liquid recommended, a layer of maiden earth, of two feet thick, should be made the substratum, which would receive any of the valuable liquid that would otherwise run to waste. Leaves of slow decomposition should be avoided, as those of the oak, &c. which, however, are the best for retaining heat in hot-beds and pits. The leaves of Fir should also be avoided, but those of the Sycamore, Elm, Alder, Maple, and all the soft kinds, are best suited for the purpose. This compost should be kept dry, in an airy place, and ridged up, so that the rain cannot wash out the salts with which it abounds.—*Doyle's Practical Gardening.*

Massachusetts Silk.—We observe that the Bristol County Agricultural Society have awarded four premiums for white mulberry-trees, two of which were given for those planted expressly for the making of silk on the same farms. The whole number of trees entered for the premiums, was over 70,000.

Wheat in Illinois.—In one county in Illinois, 900,000 bushels of wheat have this season been raised.

NEW OVEN.

We lately examined a model of an oven on a new construction, invented and patented by Mr. Joseph C. Carlisle, of Chesterfield. It is built of brick like any oven, but below the hearth is a vacancy for the fire; and the flue runs spirally around the outside of it, so that it is heated from the outside. It requires no sweeping or wetting of the hearth, and of course is exempt from the cracking, which is often occasioned thereby. It may be kept constantly hot if necessary, as the fire does not communicate at all with the inside of it.—*Maine Farmer.*

On the Flowering of Vines.—It is often observed that healthy and vigorous growing vines, even in favorable seasons, never produce any, or but very little fruit. This is sometimes occasioned by the plants producing only male flowers, and in these cases the anthers are sessile, or if the filaments are present the anthers are wanting. A second cause of this failure is when only female organs are developed, which, however, are sometimes impregnated by insects with the pollen of other vines, and therefore produce berries only very sparingly. A third, and very prevalent cause is, when the calyx opens on the top and forms a basin, which retains water about the organs of impregnation, and thereby hinders them from performing their respective functions; all such plants should be either destroyed entirely, or grafted from a free bearing vine, that flowers perfectly.—*Gardener's Magazine.*

Noise of Anvil—*A Simple and Useful Invention.*—An Italian blacksmith has successfully practiced a very simple contrivance to diminish considerably the loud noise occasioned by the percussion of the anvil. It is merely to attach a piece of iron chain to one of the horns of the anvil, which carries off a portion of the usual acute sound. But Sig. G. Visini Asso, in the province of Coma, has introduced an improvement to this by adding a spring to the basis of the anvil, which, (keeping the chain stretched,) diminishes the sound in a much greater degree, and is equally easy to remove the ring of the chain from the horn of the anvil by a mere blow of the hammer.—*N. Y. Daily Advertiser.*

The Western Tiller says, Peach Trees continue to be in a more healthy state, and yield much better upon grass land than upon that which is tilled. The trees upon grass land will bear when those upon the tillage land will not. The article says, "I shall not pretend to theorize on these phenomena, but the inference appears natural that we may have over-doctored the trees, as is sometimes the case with a learned profession in curing diseases incident to human nature." Will not some of our farmers inform us whether the above case will not apply to apple or other fruit trees.

Poultry.—Fowls of every sort may be profitably fed on boiled potatoes and meal mixed. Hens which do not lay in the winter should have access to slacked lime, pounded bones, oyster shells, or other matter, which contains lime in some of its compounds, because something of the kind is necessary to form the shells of their eggs, which are composed of the phosphate of lime.

To Preserve Flowers.—Gather them in various stages, from the young bud to the full bloom blossom, and press them carefully between several folds of blotting paper, changing them into dry parts of the paper every second or third day, until all their moisture is absorbed, then press them between the leaves of some book. The same cautions apply to leaves, which should always be the most perfect.

A polished metal tea-pot is preferable to one of earthenware, because the earthen pot retains the heat only one-eighth of the time that a silver or polished metal pot will; consequently, there will be a corresponding difference in their fitness for extracting the virtues of the tea.

For the Genesee Farmer.

Objections to the Laws of New-York, regulating Highways--No. II.

I think it will appear, from what has been said in my preceding essay, that labor done to roads, in accordance with the laws of this state, regulating highways is often performed under great disadvantages, frequently misapplied altogether, and still more frequently rendered unavailing, by the injudicious and unskilful manner of its direction. Few probably are aware of the extent of these evils. It will be easy to show, that the annual loss, sustained by the state, and resulting from the imperfection of its road system, is very great. Gentlemen of observation who, like myself, have had opportunity of witnessing the manner in which work is usually performed on roads, will not dispute me, when I say, the state sustains a loss equal to half of all the labor assessed therein, and required by law to be performed on highways and bridges. My own judgment is, that the loss is equal to two thirds of all the labor so assessed. Yet, lest I should be thought to exaggerate, I will say half, and take that as my data.

The town in which I live, having been recently divided, is small. Its dimensions in one direction are four, in the other 7 ¼ miles. It contains, according to the late census, 2626 inhabitants. As to population, and amount of highway tax, this town probably does not differ much from the average of all the towns in the state. I find, from an inspection of files in the town clerk's office, that the inhabitants of this town have been taxed the present year, (1833,) for highway work, to the amount of 1725 days' labor.

I have no documents before me, by which I can ascertain precisely the whole number of towns in the state. According to Williams' Register for the year 1831, the number was at that time 757. Subsequently, there have been three regular sessions of the Legislature, and, no doubt, the number of towns has been considerably increased. Believing that 770 will not differ much from the present number, I will suppose that to be the number, and take it as my data. If then, all the towns in the state on an average, have been taxed for highway work, as this town has the present season, that is, each to the amount of 1725 days' labor, the whole tax in the state has amounted to 1,328,250 days' labor. I maintain, fearless of contradiction, that the state, in consequence of bad management, resulting from the imperfection of her road laws, has sustained a loss equivalent to the labor of half that number of days. The loss then is equivalent to the labor of 664,125 days. We will see presently how the footing will stand, when this is reduced to dollars and cents.

The road laws do indeed admit of commutation for highway work, by paying at the rate of five shillings a day. Yet that sum is not equivalent to a day's labor, the laborer keeping himself. The worth of a day's labor, at the season of the year when highway work is usually performed, certainly should not be estimated at less than six shillings, seventy-five cents. This then I will suppose to be its value. It has been seen that, in consequence of the imperfection of our road system, the state sustains annually a loss equivalent to 664,125 days' labor. This, at seventy-five cents a day, is equivalent to $498,094, a sum but a trifle less than half a million. This is an alarming sum when its loss is contemplated; and yet the state, every year, sustains a loss equivalent to it, in consequence of continuing to cherish her old and defective system of road laws. I call now on my agricultural brethren, and all others, who have been conversant with highway work, to correct my errors, if I have made any, and show the fallacy of my reasoning, if it is false. That our road system is guilty of mischief to the full extent of my charges, I have not the slightest doubt.

A sum equal to nearly half a million of dollars, is too considerable to be disregarded. Save this useless expenditure; redeem this monstrous loss, and let its equivalent be applied to the destruction of pernicious weeds, which are infesting our country, and threatening to ruin some of its fairest portions. Half a million of dollars, judiciously applied to this purpose, and repeated annually, would soon give a death blow to Canada Thistles, Johnswort, daisies, and whatever else in the form of noxious weeds, should present themselves in hostile array, against the agricultural interest of the country.

A petition from two respectable agricultural districts, was presented to the Legislature, during its last session, praying for an appropriation of $25,000 annually, to be continued twenty years, the object of which was, to sustain a grand state agricultural institution, embracing a State Society, and a society auxiliary thereto in each of the counties. The petitioners themselves although they knew that they had asked for nothing more than ought to be granted them, and might be granted in perfect accordance with the best general policy, were sensible nevertheless that, in limiting the amount of their claims, they had gone far beyond all domestic precedent in similar cases, and had asked for a sum, which it was likely many would consider as extravagant. They had asked for half a million of dollars, that is, for annual grants of $25,000, during a series of twenty years, which would amount, in the end, to that sum. Extravagant as they may seem to have been, they asked for very little more, and that too to be received at twenty annual installments, than might, *in one year*, be redeemed from loss, by repealing the highway act, and adopting such a substitute, as would lead to the practice of economy in the work of common roads and bridges.

Another petition was presented to the Legislature at the same session, praying for the institution of an Agricultural Seminary or College, at which a portion of our young men might receive educations, qualifying them in the best manner for the practice of husbandry, and, at the same time, fitting them for the highest stations of public life. And who does not see, that immense advantages to community might result from such an institution? Yet perhaps some may say, it will cost too much, and require too heavy a draught to be made on the public treasury. The greatest estimated public expenditure that will be needed for the purpose, is that of $100,000. This, to be sure, is not a trifling sum; it is, indeed, a great sum; but great as it is, nearly five fold its amount might, *in one year*, be redeemed, by putting an end to that misapplication, misdirection, and profligate use of the public resources, unavoidably incident to our present system of laws regulating highways. These considerations are, perhaps, not closely connected with my subject; yet I thought it might be useful to introduce them, in order to show the importance of consistency in the management of financial concerns. To be too prudent, on the one hand, in avoiding public expense, and on the other, too careless and slack, in directing the resources of the people to an economical and legitimate use, are, in legislation, alike censurable.

D. B.

Onondaga county, Oct. 4, 1833.

For the Genesee Farmer.

ON THE FORMATION OF A HERBARIUM OR HORTUS SICCUS.

My attention has been directed to this subject in consequence of the following epistle which I received some days ago:

"Sir---I perceive by your writings in the Genesee Farmer that gardening and botany is a favorite study with you; permit me, therefore to solicit some information and instruction through the medium of that valuable periodical as to the proper and most efficacious mode of forming a *herbarium* or *hortus siccus*. I assure you any useful remarks on that subject will be thankfully received by several readers of that useful work, and by none more so than, Yours,

A Female Botanist."

In compliance with the wishes of my fair correspondent I shall offer a few hints which I hope will prove acceptable and useful,—happy to find this auxiliary to the study of botany is becoming to be appreciated according to its merits, for dried specimens of plants far surpass either drawings or descriptions. The most complete artist may fail in conveying a fac simile of the original in perfection, and the most elaborate description will but faintly elucidate the object under consideration when compared with the original, and by forming a Hortus Siccus, even our dreariest days during the sullen blasts of winter storms, we can set at defiance, and a recollection of luxuriant summer will appear before us, clad in all her vivid charms, and various hues, by a review of her productions in blooming perfection; this a herbarium will admirably accomplish.

The mode by which plants is prepared for preservation is principally by desiccation, accompanied by pressing. In collecting plants for this purpose they should invariably be collected during a dry day when they are decidedly free from external moisture. If collected at a distance a *tin case* is very beneficial for preserving them until you can conveniently put them in the press, but if gathered in the immediate vicinity they should with all possible speed be placed in their respective situations. The greater part of plants dry with facility between the leaves of books or other paper: but the best paper for the purpose is *blotting* paper, which freely absorbs the moisture. The specimens should in the first place be laid as regularly as possible, with the upper and lower surface of the *leaves* placed alternately on the paper, but all the parts of fructification should be placed distinctly to the view, such as the corolla, stamens, pistils, &c., that they may be freely examined and the true character of the plant easily distinguished. This is a very essential point in discriminating and determining plants with which we were previously unacquainted; 'tis the *real* benefit a *botanist* derives from a Hortus Siccus. From the time the specimens are placed in the paper until they are perfectly dried, they will require to be frequently shifted,—particularly if they are crowded, by a deficiency of paper. The

paper must be perfectly dried before they are replaced, or place them in fresh paper; but if there be plenty of paper between the different specimens, shifting them will not be requisite at all, for when such is the case they often dry best without shifting. One point will particularly require attention; that the process meet with no check. A more speedy and equally efficacious method is to gather the plants, i. e. the specimens, when free from exterior moisture, place them between sheets of paper and press them with bags of hot sand. In this way they dry of their natural color in a few hours; but which ever way is adopted, it is necessary that the pressure be gentle at first, particularly in the former method, and increased by degrees, and that it be equal in every part; if a regular press for the purpose is not used, boards or books form a very good substitute. The above methods will answer remarkably well for plants in general; but, several species are so tenacious of their vital principle, that they will grow between the leaves of the paper; the consequence of which is, a destruction of their proper habit and colors. It is therefore necessary to destroy the vital principle of such, either by immersion in boiling water, or by the application of a hot iron, such as is used for linen, after which the operation of drying is easily effected. For *succulent* plants, &c., this plan will be found very useful. Which ever method is adopted when the specimens are perfectly dried, they may for some time be placed loose between leaves of paper, but ultimately a regular arrangement ought to be made. This should be done on a stout thick paper; if of a white color so much the better, and the size should be folio to admit of large specimens without curtailing and deforming their parts. The dried plants should be attached to this by one or more transverse slips of paper, glued by *gum arabic* at one end and pinned at the other, so that the specimens may be readily taken out, examined, replaced, or formed at the expiration of several years into general arrangement, adopting in such arrangement the system most congenial to the taste of the collector.

Herbariums are frequently attacked by insects which injure them very materially. To remedy this inconvenience, a solution of corrosive sublimate of mercury in rectified spirits of wine, about two drams to a pint, with a little camphor, will be found perfectly efficacious. It is easily applied by means of a camel's hair pencil, when the specimens are perfectly dry, and it would be very advisable to mix a few drops of this solution with the *gum arabic* used for pasting.

The best place for keeping the herbarium is a very dry room, and if there is not a constant fire so much the better.

I hope I have made myself sufficiently explicit on this subject, but should it be otherwise, it will afford me great pleasure to render the explanations more plain, for the subject of Botany in all its branches, is one in which, although a very indifferent professor, none feels a more lively interest. Very respectfully, ALEX. GORDON.

Rochester Nursery, Oct. 15, 1833.

A young man of Hadley, Massachusetts, has subsisted for ten weeks on fruit, refusing to partake of any thing else, having become convinced "that it is sinful to eat common food."

ERIE COUNTY.

The following is an address from the board of Supervisors of Erie County, lately convened at Buffalo, to the agriculturalists of that county:

The Board of Supervisors of Erie County, before adjourning their annual meeting, beg leave to address the agricultural portion of their fellow-citizens, upon the importance of their adopting some measures in relation to the improvement of Agricultural Science, and the proper education of their children for its pursuit. New developments in the Sciences are daily placing additional powers and facilities at the disposal of man; and in no department are these developments more important in their influence upon the happiness and comfort of a population, than in Agricultural Science. The laws which govern matter are of the first importance to him who tills the soil. By knowing these he anticipates results; and, to a wide extent, ensures desired ones. No pursuit or calling can prosper in the hands of men, who do not keep even pace with those Sciences upon which its success depends. This in the present state of our agricultural interests it is impossible for the agriculturist to accomplish. So little has been done, in this country, in the way of necessary investigation upon the proper points, that we have but imperfect data upon which to proceed. The few books we possess upon the subject, and most of the Agricultural periodical publications are of a desultory nature, destitute of proper arrangement: and what is still worse, they are constituted, for the most part, of foreign rules of procedure and details of experience, wholly unsuited either to our soil or climate.

From these facts, it is quite evident, that the present and the future alike require immediate measures upon this subject.

The State Legislature, during its last session, duly impressed with the importance of the subject, and upon the recommendation of the Governor, received reports from two committees, (one from each branch,) favorable to the "establishment of a State Agricultural institution, to be constituted by a main State Society, with County Societies, as branches of the same; to be endowed with an annual appropriation of $25,000, from the State Treasury, to be distributed among the several County Societies, on the ratio of $150 to every member of Assembly; to be expended in premiums for practical experimental improvements in Agriculture, Horticulture and Manufactures: and the residue (being nearly six thousand dollars,) appropriated for the State Society, to be expended in procuring of choice, select, rare and useful animals, vegetables, seeds, implements and essays upon Agriculture, for public distribution." As part of the proposed plan, also, was included a State School, with County branches, for the proper instruction of the rising generation, who are to inherit and till the lands of their Fathers. To carry out these plans, a bill was introduced into the Legislature, and purposely left without action, that time might be allowed for maturing the plan and of testing public opinion in relation to its adoption.

It is unnecessary, we trust, to go more into detail here, as all who reflect are aware of the utility and importance of united and energetic measures of this kind to increase the bounties of the husbandman, and to ensure a more equal distribution of the necessaries and the comforts of life, among that body of our population.

Without assuming to do more than advise, the Board would respectfully recommend, that for the ensuring of the blessings that judicious Legislation upon this subject, must inevitably produce, a delegation of three persons from each town in the county, to represent the *Agricultural* interest, meet in County Convention, at the Court House in Buffalo, on the second Wednesday of November next, for the purpose of agreeing upon a Memorial to the Legislature praying for such enactments in the premises, in relation to Agricultural Societies and Agricultural Schools, as shall be deemed expedient and desirable.

R. Plumb,	Jno. G. Camp,
Epaphras Steele,	N. H. Mann,
C. Emmons,	M. M'Arthur,
A. Salisbury,	H. Bowen,
B. O. Bivens,	John Brown,
Jonathan Laker,	Elisha Smith,
L. J. Roberts,	William Jackson,
John Hutchinson,	Jonathan Hoyt.
Harvey Caryl,	

Buffalo, Oct. 3, 1833.

MOUNT AUBURN.

The Bostonians are getting up so beautiful a graveyard, that there is some danger the living will seek a permanent residence within its borders. It is situated several miles out of the city, we believe in Woburn. The name of Mount Auburn has been given to it. A few days since, the editor of the Salem Register paid it a visit, and has favored us with the description annexed:

There is nothing like this place any where. It is indescribable. The gate way, or entrance, is a beautiful specimen of architecture. There is in the center a high arch way, on either side of which there are gates of entrance for foot passengers, and on the sides of these, lodges or rooms connected with the whole architectural design. It is of wood, painted to resemble granite. On the entablature of the arch, is a device, which we could not distinctly explain, under which is this sentence:

"*Then shall the dust return to the earth as it was, and the spirit to God who gave it.*"

Upon entering the grounds we came in front of the neat cottage of the gardener, standing upon a beautiful eminence, and the ornamental grounds sloping away in front until they meet the plain at your feet—and behind the house, the swelling eminence rises till it reaches the wild and tangled forest spread over all the enclosed grounds which constitute Mount Auburn. It is a place of high and abrupt hills, deep vales, ridges and ravines, ponds, and rocky precipices and gentle slopes, all covered with a dense forest of walnuts, oaks, pines, cedars, birch, buttonwood, &c. in distinct masses, or wildly intermingled—every variety of wild flowers, from those which grow in ponds and quagmires, to those which start out and bloom in the crevices of rocks, or flourish on the tops of bleak and gravelly knolls,

"Poured forth profuse o'er hill, and dale and plain."

This wild and extensive tract has been taken in hand by gentlemen of classic taste, and by their direction and the skill in picturesque and ornamental gardening of Mr. Haggerston, the whole has been converted into one great garden. Serpentine paths, bordered with shrubbery, wind round the skirts of the hills, broad avenues open before us, ascending or descending, and winding

to the right or left, dividing and branching off and diverging into other avenues, sometimes opening upon a marble obelisk of rare beauty, or a granite monument, or an enclosure ornamented with shrubbery and flowers.

The pond holes are cleared out, and embanked with turf; gravelled walks wind round them, or namented with flowers; here was a tomb in the side of some low browed rock, opening upon us with its classic front of hewn granite, overhung with the wild woods above which throw out their old fantastic roots over the top of the tomb; then we came to a sweet spot ornamented with flowers; then to squares enclosed by corner columns, connected by festoons of chains, with a towering obelisk in the center, and the wall fringed with rose bushes. Others were bordered with acacia, some with tulips, and other bulbous plants. One tomb in the center of a highly ornamented square was covered with rough stones the interstices filled with earth, and the elongated mound set over with a profusion of perennial plants. On one square was a tomb sunk beneath the ground, the surface of which was a beautiful parterre. The gardener was then planting ornamental shrubbery, and a hydrangia and monthly rose bushes, which seemed to have been sent there from some parlor, no longer to bloom in the presence of beauty, but to cover the spot where beauty was to mingle with the dust.

Mount Auburn is a place of fashionable resort. We found many carriages at the gate, and many persons entered the gate way with us; but as we proceeded onward up the winding avenues, other avenues branched off, some up to the woody hills, others down the silent vales, then a narrow path led off into the dense forest, then a sheet of water would invite our steps, and so the company parted some one way and some another, till we found ourselves doomed to seek out our own way through the tangled forest. The farther we went forward, the more frequently the paths branched off, and the more wild and picturesque the scenery became. At the entrance of every avenue and path there was a guide board having the name of the avenue or path printed on it. One was called "Laurel Avenue," another "Rose Path," another "Violet Path," another "Indian Ridge Avenue," another "Consecration Dell," &c. in endless variety We saw no two places alike in this epitome of New England, nor did we meet in the whole course of our rambles any of the numerous visiters who entered with ourselves. On the top of the highest hill we saw the dome and steeples of the capital. From this place we descended, and wound our way down to the plain, and came out of the gate we entered.—*N. Y. paper.*

FALL TRANSPLANTING.

As soon as a plant has so far completed its summer growth, or matured its wood, as to begin to drop its leaves, it may be transplanted with safety. Transplanting in the fall, in preference to that in the spring, has many experienced and decided advocates. No person who wishes to set out plants should neglect to do it in the fall, if he has the means and the time. If delayed until spring, it is often put off for years. More depends on the care in taking up the plants than on the season. Last spring we took up an apricot tree, 15 to 18 feet high, in full bloom, and carried it half a mile. It ripened its fruit, and showed no indications of having received injury. On taking it up the roots were immediately put into a large tub, and covered with water and soil. Whether transplanted in the fall or spring, the fibrous roots should be exposed to the air as little as possible. When a plant is in foliage, or in a growing state, it is curious to see how soon and how greatly it is affected by an exposure of the roots to the sun or air the shortest possible time. A fish out of water, or a person immersed in it, is not more sensitive.—*N. Y. Farmer.*

COMPARATIVE VIEW OF THE PROFITS OF RAISING HORSES, CATTLE, AND OF KEEPING SHEEP.

The operations of farming all tend to practical results, and the moving principle with all farmers is profit. Having an eye steadily fixed on that object as a reward for his unremitted toils, and to insure a comfortable maintenance for his family, the farmer can have no greater pleasure than to see the work prosper in his hands, and to feel that as to circumstances, he is becoming independent. In my former communications on sheep husbandry I do not pretend to have settled the subjects that I discussed. My desire was only to arouse the attention of farmers to their importance, and to shed as much light on them as my limited observations had enabled me to gather. I trust abler pens than mine will hereafter be employed to give more correct views of them, which will lead to more beneficial results. Truth is the object, and when we elicit and diffuse it we gain two great points in our existence. In my first number I treated of sheep husbandry generally; in the second, when we raised sheep for the mutton and wool whether we had the most profitable kinds; in the third, which afforded the greatest profit, to raise sheep for the mutton and wool or for the wool only. I purpose now to extend the investigation with a view of ascertaining which can be the most beneficially followed, the raising of horses, cattle or sheep.

In making estimates of cost and expense, I can have only the data of daily observation to guide me, and should they vary a trifle from the actual cost, still they will come so near a correct result that all my purposes will be answered. A summary of profit and loss may be wrong as to the odd cents, but as far as dollars are concerned, I flatter myself that it will be somewhat near the mark. Every farmer has a certain quantity of pasture and hay to dispose of which he wishes to turn into the largest sum of money. He concludes that it is most to his profit to consume the same by keeping stock. Now let us see which of the three kinds, horses, cattle or sheep, he had better turn his attention to, always bearing in mind that he is to keep the best of whatever kind it may be. If he raises horses,

A good brood mare will cost, say	$100 00
The interest of which one year is	7 000
To insure a foal	10 00
Interest till the foal is 4 years of age	2 00
One year's keeping of the mare, say	20 00
First year's keeping of colt	7 00
Second....do.....do	15 00
Third.....do.....do	20 00
Fourth.....do.....do	22 50
	$104 80
Now add the interest on these annual expenses, as all are cash articles,	5 20
Making the cost of every horse	$110 00

when four years old. I would ask whether this sum is realised for one half of the number of horses that are raised? How much oftener do they go below this sum than above it; and when we stand our chance for a sound valuable young horse, how many chances, from the nature of the animal, are there that it will be otherwise? The horse is an animal subject to many diseases, and I have known promising colts turn out but indifferent horses. When a farmer can take in stock to pasture, and have a convenient market for his hay, he must see, if he makes an estimate, that the above calculation of yearly expenses is much too low, and that instead of costing $20 to keep a horse a year, it would amount to between $30 and $40. To raise horses therefore is unprofitable, when we can make a better disposition of what they consume.

We will next turn our attention to the raising of cattle, and this requires a somewhat different calculation; for instance, we say nothing for the cow, as she is to pay her cost and expenses in furnishing us with butter and milk. It is the expense attendant on keeping her progeny which must be estimated. The keeping of a calf for

the first year will be, say	$4 00
Second year	8 00
Third year	10 00
Fourth year	10 00
Interest on yearly expenses at least	2 66
So that a bullock or heifer costs	$34 66

when four years of age, which is quite as much as they can sell for, and in the generality of cases a great deal more. Still the sale of cattle and the expense of raising them, will come much nearer the paint, than the actual expenses and sale of horses, for the first require less attention and are not subject to as many diseases. It must be remembered, however, that in both cases we are four years without any profit, and that if a farmer expects to realise $250 a year from the sale of his cattle, he must sell at least eight head annually for a little over $30 each; and to keep his yearly supply good, must have twenty-four growing—so that to make $250 he must have constantly on hand 32 head of young cattle. From the above statement he must see too that if he resides near a town or village, it will be more profitable to pasture the stock of others than his own, and that the larger the number he raises, so in proportion he loses in what ought to be considered the annual profits of his farm. I do not take into this calculation the fattening of cattle—they may or may not be profitable, as it depends in a great measure on the capacity of the man who conducts it. Nor is there taken into this calculation the profits of the dairy, as that again is foreign from my purpose, and requires a very different estimate. I speak simply of the raising of cattle and selling them at the time they are commonly called for—that is, when they are four years of age or near it.

If we take $250 as the sum the farmer wishes to realise from the sale of his stock, we have seen that he must keep at least 32 head of young cattle constantly on hand to raise that amount. If he is to do it from the sale of his horses, even if he can sell them at $110 each, he must have at least 3 brood mares and 10 young horses constantly on hand, and the greater part of the year likewise, he must employ a groom to break and take care of them. Even with these numbers of cattle or horses it would not be more than once in ten years that the sales would come up to the $250. Now how many sheep, taking the kind generally raised by our farmers, would it require to give us $250, and would the keeping be as expensive and the sales as uncertain as the raising and sale of 32 head of cattle or 10 horses? We will take the number of 100, which will give us say 3½ pounds of wool each; this at 40 cents gives $140. From 100 sheep we ought to have 85 lambs, which are worth from $1 25 to $1 50 per head, making about $110. Thus making the aggregate amount from the sale of wool and lambs $250. I make no account for the interest on the cost of sheep, because other profits may be made out of them; for instance, fat some of your old ewes, which will sell for a good deal more than the lambs, and which will swell the sum much over $250; and we must bear in mind that there is no uncertainty in the sale of either mutton and wool.

Now let me ask what famer there is who, from the experience he has had in keeping these different kinds of stock, would not much sooner, and at much less expense, keep 100 sheep than 32 head of young cattle or 10 horses, with two or three brood mares to produce them. Horses and cattle require good pasture and a constant succession of it. The sheep are turned into short pastures, woodlands or fallows, and yet do very well. I should think there would be nearly half the difference in the expense of pasturing. Next as to wintering—ten or twelve horses, from one to four years of age, consume at least 1½ tons of hay each, making 18 or 20 tons in the whole. The

young cattle may be more cheaply wintered—they may be fed principally on straw, but if they require only 500 cwt. of hay each, it will still make 8 tons, which would be a small quantity for them to consume. It is probable, however, that they may be kept over the winter on this quantity of hay with abundance of straw, still it is not keeping them in the manner in which they ought to be kept. One hundred sheep, when nothing but hay is fed, will consume during the winter not far from ten tons. Straw they would eat with reluctance, but corn stalks and husks, which are much cheaper than hay, and which we should feed our young cattle, make very good food for sheep. They are fond of this kind of fodder, and thrive upon it if carefully fed, and 5 tons of hay, and as many of stalks and husks, would be an abundant supply. But it is in summer that the sheep would have vastly the advantage over the cattle in point of the expense of pasturage; and for myself, I think I could keep as cheaply 200 sheep during the summer as 32 head of cattle. In point of manure, however, I think the cattle would yield more than either the horses or sheep. I do not pretend to say but a farmer may keep a small number of horses and cattle profitably to a certain extent; for he can avail himself of adventitious circumstances. But I do say, if he raises stock for sale and profit, the raising of sheep will be far more lucrative to his purse and beneficial to his farm.—*Columbia Sen.* A.

From the London Horticultural Register.

NOTES ON THE IMPORTANCE OF DISPERSING THE VARIOUS VALUABLE PRODUCTIONS OF THE EARTH.

Observing that you have given in your valuable *Register* the best method of conveying plants and seeds* across the ocean, I send you a few notices to show the importance of speading the numerous valuable productions of the earth throughout the various colonies of England, and also how easily any individual may assist in conferring the greatest benefits on mankind, if he have facilities for planting or dispersing such things among his friends or neighbors.

In 1493, Columbus ordered those whom he left behind him at Fangori, to search for gold mines, and to sow European seeds.

In 1493, Columbus took a cargo of domestic animals, seeds, vine cuttings and sugar canes on board, and discovered Dominica.

1494. The king of Spain ordered Columbus to prepare a farm, to lend the laborers fifty bushels of wheat and other corn from the government stores for seed, with twenty couples of cows, mares and other beasts of burden. Gardeners and husbandmen were sent out, and the settlers were also ordered to build houses and plant vineyards and gardens.

1494. Columbus founded the town Isabella. Several sorts of seed were sown, which grew rapidly and luxuriantly. On the shore of the river they made orchards and gardens, in which all kinds of the larger herbs, such as radish, lettuce, coleworts, borage, &c. became ripe within sixteen days after the seed was sown. They have likewise melons, gourds, cucumbers, and other like matters; as also the roots of canes or reeds, of the liquor whereof sugar is made, but the liquor is not yet hardened. The like they affirm of plants of vines, saying that they have the second year gathered ripe and sweet grapes, but by reason of too much rankness they bear but few clusters. All kinds of pulse, as beans, peas, fitches, tares, and other such, are ripe twice a year.

1503. Orando found out the chasing of the wild boar in St. Domingo. There were none when the island was first discovered, but the domestic animals brought by the Spaniards had run wild and multiplied exceedingly. The governor gave orders for cultivating mulberry trees.

1516. The plantain tree was carried from the Canaries to Hispaniola, by a Dominican.

1518. The sugar cane from the Canaries, which had been brought by a person named Aquilon, in 1506, had increased so much that a mill was erected in St. Dominigo by a native of Vertinga.

1518. Bernal Diaz, having brought some orange seeds with him from Cuba, planted them near one of the places of worship in which he had sought shelter from the Musquitoes. They grew and flourished and bore fine oranges, and were the first ever seen in New Spain.

1519. In Jamaica, some of the Spanish inhabitants had planted vines, and made several casks of good claret.

1526. The king of Spain ordered, that whenever any thing remarkable was found they should buy it for him.

1538. Horses were bred with much care in Cuba; the breed was famous for strength, shape and color. Many persons had twenty, thirty, or even seventy horses in their stables.

1565. At Curracoa, there were 100,000 cattle, all bred from a dozen of each sort in twenty-five years.

1616. A ship from the West India islands arrived at Bermudas with figs, pines, sugar canes, plantains, papaws, and other plants, which were immediately cultivated with success. The *Edwin* was sent from Bermudas by governor Tucker, for the purpose, in pursuance of orders from England.

1647. Tamarind trees were first planted about this time at Barbadoes, also the palm tree; the latter being from the East Indies.

1666. The cocoa tree was planted at Port au Paix, and Port Mangot, and soon spread over the island, by Mr. Ogeron.

1715. Coffee was first brought to St. Dominigo.

1744. Seeds of Guinea grass were brought from Guinea to Jamaica, to feed some birds presented to Mr. Ellis. The birds died, the seeds were thrown out, where they casually grew, and the eagerness of cattle to eat the grass, suggested the idea of cultivating it. A vast advantage has been derived from its thriving in the most rocky places, which otherwise would be of no value.

1757 The seeds of the Barbadoes cabbage tree were first brought to Jamaica, by governor Knowles.

1772. Plants of true cinnamon, logwood, turmeric, East India mango, Tobago nutmeg, sesamum, cassia, anatto, China tallow tree, vanilla, &c. were in St. Vincent garden.

1782. Lord Rodney took a French ship from the Isle of France to St. Domingo, with a large collection of oriental exotics, and a few plants of the real cinnamon.

1783. Cochin-China rice, and the tallow tree, were first raised in Martinique. They were also sent to Paris from Canton, by M. Lamy.

1789. The Baron de Wimpfern carried out the first seeds of narcissus, hyacinth, and violet, ever known in St. Dominigo.

1790. The plants taken to Jamaica by the Earl of Effery have succeeded beyond expectation, Gazzerat wheat, barley, Ashmood rice, pulse, &c. as also a species of mangosteen.

1793. Admiral Blyth brought the bread fruit tree to the West Indies.

June, 1799. Mr. L. Millington sent some East India seeds to be distributed in Barbadoes, and a plant of the teak tree was preserved.

1809. The spice plantation of La Gabrielle is specially protected by an article of the capitulation of Cayenne.

Rice was carried to Carolina in the following manner:—Thos. Smith, the governor, in 1683, had been at Madagascar, the country of rice, when a ship from that country with slaves was driven in distress. Mr. Smith expressed a wish to try some rice in his garden, the cook gave him a small bag, he sowed it in a place now called "Longitude Lane," the crop was distributed, and from this small beginning did the staple article of Carolina take its origin.

The history of indigo in America is also very curious. At one time it was the second staple produce of Carolina. Mrs. Ponkney received some indigo seeds for her garden from her father, the governor of Antigua. She planted them in March, 1742, the indigo was cut down by the frost, she planted again in April, and it was lost again. She tried again, and having succeeded, she distributed the seed. Hence the culture became common, and in a few years it was an article of export.—*Pitkin's Stat. Amer.*

* In a future number we will give our readers an account of the method of conveyance here spoken of.

FOOD FOR CATTLE.—In some parts of France oxen are fed on leaves. This seems to have been an established custom in the time of Henry IV., as it is particularly mentioned by Oliver de Serres, who wrote under the auspices of that monarch, *the Theater Agriculture.* The practice was formerly used in England also in Henry VIII.'s time, and even so late as the reign of Charles II., as appears from Evelyn. The leaves used in France are principally those of the beech. They are gathered when on the point of falling, or immediately after they have fallen, and are preserved as dry as possible, by being covered with straw.

Rochester Prices Current.

Wheat, per bu.	72	Apples,	22a25
Flour, per brl.	5 00	Lard, cwt.	8 00
Pork, mess, brl.	16 00	Cheese do	5a7 00
do prime do	13 00	Butter	12½a15
Beef per cwt.	2a3 00	Hams do	8a9 00
Oats,	28	Pot Ash, cwt.	3 50
Corn,	44	Pearls,	3 75a4 00
Rye,	56	Hides, cwt.	5 00
Barley,	50a56	Sole Leather,	19a22 00
Hay, per ton,	10a11 00	Harness do	25 00
Grass Seed,	1 25	Upper p side, drs'd	2 25
Potatoes,	19	Bundle do-	300a350

LINNÆAN BOTANIC GARDEN AND NURSERIES.

Flushing near New-York.

WILLIAM PRINCE & SONS, announce to the public, that, from the immense extent of their establishment, they are enabled to furnish such Trees of the various kinds as cannot fail to give satisfaction by their superior size, vigor, &c., and their Nurseries at present contain more than a million of Trees and Plants in the most thrifty state. Among these are above 50,000 Pear trees of three and four years growth from the graft, comprising the most choice new Flemish and other varieties of modern origin. Their new Catalogues with the reduced prices will be forwarded to every applicant, and are as follows:

No. 1. Fruit and Hardy Ornamental Trees, Shrubs and Plants

2. Bulbous Tuberous rooted Plants and Dahlias, &c. and

3. Greenhouse Trees, Shrubs and Plants.

4. A Catalogue of Vegetable, Field and Flower Seeds.

To the Proprietors of Nurseries, and to those who may wish to establish new Nurseries, they will furnish all articles desired at a liberal discount and a convenient credit; and in all other cases where large quantities are wanted, a reasonable abatement will be made. They will also supply all venders of seeds, and those who wish to engage in that business, with every variety of Vegetable, Field and Flower seeds at very low rates These seeds possess the advantage of being raised under their own observation, or when imported, of being tested to their satisfaction, and *their accuracy and vitality are expressly guaranteed.* Many new and choice varieties will be found in the Catalogue which have never before been offered to the public. The collection of Bulbous flower roots and Dahlias is particularly rich and extensive, and of the latter they have a specimen bed covering an acre of ground, and comprising 600 varieties. now in full splendor. Bulbous roots and Dahlias are easily transported, and can be vended in a dry state in Seed Stores, &c. and an establishment for the sale of these articles ought to exist in every town in the Union. It will be readily perceived that the great number of Trees &c., always in the Nurseries enables the Proprietors to make superior selections, and secures to all applicants this particular advantage.

It is desred that all orders be sent *direct to the proprietors* by mail and the utmost attention will be given to forwarding them by the speediest route, &c. Oct. 19, 1833. 2t

THE FARMER.

Of all pursuits by man invented,
The ploughman is the best contented,
His calling's good, his profits high,
And on his labor all rely.
Mechanics all by him are fed—
Of him the merchants seek their bread;
His hands give meat to every thing,
Up from the beggar to the king,
The milk and honey, corn and wheat,
Are by his labors made complete.
Our clothes from him must first arise,
To deck the fop, to dress the wise:
We then by vote may justly state
The ploughman ranks among the great.
More independent than them all,
That dwell upon this earthly ball.
All hail, ye farmers, young and old!
Push on your plough with courage bold;
Your wealth arises from your clod,
Your independence from your God.
If then the plough supports the nation,
And men of rank in every station,
Let kings to farmers make a bow,
And every man procure a plough.

MANUFACTURE OF COTTON IN THE UNITED STATES.

The New-York Mercantile Advertiser contains the subjoined interesting article:

We proceed, according to our promise, to give further statements of the state of the cotton manufactured in the United States, in 1831, as collected by the Committee of the New-York Convention. In our paper of Saturday last we showed that there were in twelve states of the Union, 795 cotton mills, with a capital of 40,714,984 dollars, manufacturing annually 77,751,316 lbs. of cotton, or 214,882 bales of $361\frac{86}{100}$ lbs. each.

Number of spindles	1,246,903
Do. of Looms	33,506
Pounds of Yarn sold	10,642,000
Yards of Cloth made	230,461,900
Pounds of Cloth	59,604,925
Hands employed—Males	18,539
Females	38,927
	57,466
Pounds of Starch used	1,641,253
Barrels of Flour for sizing	17,245
Cords of Wood burnt	46,519
Tuns of Coal....do.	24,420
Bushels of Charcoal burnt	9,205
Value of other articles consumed not enumerated	$599,223
Spindles then building	172,924
Gallons of Oil consumed	300,338
Hand Weavers——	4,760
Total dependents	117,626
Annual value of Cotton Manufactures	$26,000,000
Aggregate or total annual amount of wages paid	$10,294,944

That there may be no doubt as to the accuracy of these statements, we give the names of the following gentlemen, through whose means the accounts were collected from the manufacturers in the different states, viz: Maine and New-Hampshire, Lloyd W. Wells and John Williams; Massachusetts and Vermont, Robert Rogerson and Patrick T. Jackson; Rhode Island, James De Wolf, James F. Simmons and Charles Jackson; Connecticut, J. H. De Forest; New-York, E. B. Sherman, James Wilde and Richard P. Hart; New-Jersey, Kentucky, Ohio and Indiana, David Holsman and Mark W. Collet; Pennsylvania, Delaware and Tennessee, Levi Wain and Alexander Breckenridge; Maryland and Virginia, Columbus James, Columbus O'Donnell and J. W. M'Culloch.

CHINA.—Shoemakers form the most numerous class of operatives in Canton; the number is estimated at about 25,000. Of lapidaries, there are upwards of 7000. Of weavers, there are about 15,000. The carpenters and cabinet makers are estimated at 16,000. There are above 18,000 boats of different sizes trading, which pass along the river from Canton to Whampoa; the tanka, or small boats, in which people live, are said to be upwards of 50,000.

MONROE GARDEN AND NURSERY,

GREECE, NEAR ROCHESTER, N. Y.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses. Vines, Creepers, Herbacious, Perrenial Plants, Bulbous Roots, &c.

Also, a few hundred of the Morus Multicaulis or Phillipine Mulberry, the white Italian Mulberry by the hundred or thousand, English Hawthorn Quicks, Grape Vines of both native and foreign varieties, mostly of large size, for sale by the single vine, hundred or thousand at reduced prices. The subscriber has a large Green House well filled with a large collection of choice Green-House Plants in good condition.

All orders, by mail or otherwise, will be promply attended to, and packages delivered in Rochester or at the mouth of Genesee River.

ASA ROWE.

Orders for Mr. Rowe's Nursery received by the Publisher of this paper.

Catalogues may be had at the office of the Genesee Farmer—will be sent to those who wish them gratis. October 5, 1833. f6m

TO BUILDERS AND FARMERS.

HIGHLY important and useful improvement in securing Frame buildings against the effects of the external atmosphere.

The subscriber is owner and proprietor of the Patent, taken out in 1832, by Ebenezer Mix, Esq., of Batavia, for his very important improvement in securing houses and other farm buildings against the effects of *heat*, *frost* and *moisture* in the atmosphere.

This improvement was noticed in the Genesee Farmer, in the fall of 1832, and is now offered to the public notice. Its cheapness and importance to the comfort of buildings, strongly recommend it to the attention of a discerning community.

By this improvement the great and long desired point, of disarming the external atmosphere of its unpleasant effects upon the comfort and well being of families is very fully attained.

Applications to the subscriber, post paid, inclosing the inconsiderable equivalent of five dollars, will procure for the applicant the privilege with instructions for using the said Patent-right in the erection of one single building or dwelling house.

JOHN LOWBER.

Batavia, Genesee Co., N. Y., Oct. 5 1833.
oct 5 6m

ELECTION NOTICE.

Monroe County, }
Sherif's Office. } Rochester, Sept. 12, 1833.

A GENERAL Election is to be held in the County of Monroe, on the 4th, 5th, and 6th days of November next, at which will be chosen the officers mentioned in the notice of the Secretary of State, of which a copy is annexed.

E. M. PARSONS, Sherif.

State of New-York, }
Secretary's Office. } Albany, Aug. 10, 1833.

SIR—I hereby give you notice, that at the next general election in this State, to be held on the 4th, 5th, and 6th days of November next, a Senator is to be chosen in the Eighth Senate District, in place of Albert H. Tracy, whose term of service will expire on the last day of December next.

Notice is also given, that at the said election the following proposed amendments to the Constitution of this State will be submitted to the people, viz:

1. "For electing the Mayor of the the City of New-York by the electors thereof"
2. "For authorising the Legislature to reduce the duties on salt." JOHN A. DIX,

To the Sherif of the } *Secretary of State.*
County of Monroe. } sept 14-arf

N. B. The Inspectors of Election in the several towns in your County will give notice of the election of Members of Assembly, and for filling any vacancies in County Offices which may

IMPROVED ENGLISH CATTLE,

FOR SALE AT AUCTION.

THE subscriber will sell at the Fair, to be held at Rochester, on the 23d inst., ten or twelve head of young Cattle of *Durham and Devon* stock. Bulls and Heifers, from six months to three years old, most of them got by his Improved short horned Durham Bull *Admiral*, who will be exhibited at the same time. Several of the Heifers are now with calf by *Admiral*.

Catalogues descriptive of the Animals will be given out before the sale. L. JENKINS.

Canandaigua, Oct. 3, 1833.

P. S.—The subscriber has also at private sale a pair of fine blood Colts—one a three year old Filly, the other a two year old Gelding, which may be seen at the time and place as above.

ALBANY NURSERY.

ORDERS for Trees and Plants from this establishment will be received and forwarded by L. TUCKER, Proprietor of the Genesee Farmer. The collection embraces, in addition to the ordinary fruits of our country, many foreign Apples, Pears and Peaches, described as of the first quality in the London Horticultural Catalogue, and received principally from the Society's Garden. Also, a few hundred *Morus multicaulis*, or Chinese mulberry, at 50 cents, or half the ordinary price, some hundreds of the *Ailantus*, or Tree of Heaven, and two thousand *Horse Chesnuts*, of suitable size for planting. A discount will be made to those who buy to sell. In the ornamental department, there is more than 300 select varieties of the ROSE, and nearly the same number of varieties of the splendid double Dahlia. Trees and plants carefully packed, and forwarded without delay.

BUEL & WILSON.

Albany, Sept. 10, 1833. sep 14 r4t

BUFFALO NURSERY.

THE proprietor is annually making extensive additions to his stock of Fruit and Ornamental Trees, Shrubs, Grapevines, &c.—and the nursery is now more complete in choice varieties and vigorous and healthy trees, than at any former period. It embraces upwards if 100 varieties of the Apple,—thirty choice varieties of the Pear, thirty-three of the Peach, beside a very general assortment of the Plum, Cherry, Nectarine, Quince, &c. Grape Vines, 15 kinds, Almonds, Filberts, Madeiranut, Locust Trees, various kinds trees from five to six feet high suitable for growing timber $6, per hundred. White Mulberry $1,50 per doz., $6, per hundred.

Horse Chesnuts, Alianthus or tree of Heaven, Chinese Mulberry, Balsam Fir, Snow Ball, Lilac, Double Flowering Almond, Catalpa, Weeping Willow, Purple Fringe Tree, &c. &c &c.

Rose Bushes, a handsome assortment.

Dahlias, a choice collection of this most splendid flower will be for sale at the Nursery in the spring.

Orders for the Nursery per mail or otherwise will receive the most prompt attention, and trees securely packed and forwarded as directed. Trees will be delivered on the wharf or Steam Boat at Buffalo, without charge, from whence they can be conveyed to any port on the western lakes without injury. BENJ. HODGE, Jr.

Buffalo, (near Cold Springs) Oct. 4, 1833.
oct 12 4t

IMPROVED STOCK.

YOUNG HOLDERNESS,

A Fine Bull, two years old—a deep red and pure white, pied—sired by the celebrated bull "Holderness," his dam a high bred cow of the Durham breed.

BRUTUS,

A fine bull calf, four months old, his sire, "Holderness."

ROAN SUSAN,

A Cow seven years old, uniting the blood of the Durham and improved Bakewell breeds, the dam of Brutus named above.

The above stock, from the farm of Mr. Ely, of Onondaga county, will be offered for sale by auction, at the Fair to be held at Rochester on the 23d inst. MERRIT C. KETCHAM.

Brighton, O 5, 183 oct 12 3t